

# Image Analysis

A Marketing & Research Company



## Washington State Department of Transportation

### *HOV LANE COMMUNITY PERCEPTION SURVEY*

#### ◆BENCHMARK REPORT◆

**NOVEMBER 2001**

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## Introduction

Image Analysis conducted a public opinion survey with 202 Washington State residents regarding the I-5 southbound HOV lane scheduled to open between 99<sup>th</sup> Street and Mill Plain Boulevard for a test period of one year. This lane is the first segment in Washington of a larger HOV lane system proposed for the Vancouver, Washington-Portland, Oregon metropolitan area.

The quantitative analysis was conducted September 18-19, 2001 and targeted individuals who use the I-5 southbound lanes at least three times per week, during the morning peak period of 6:00 a.m. to 9:00 a.m. The purpose of this research was to measure public perceptions of the HOV lane, particularly as it applies to general awareness of the lane, opinions on the expected performance of the lane, and how travel times might be effected by the lane change. Additionally, residents were asked to expand on their reasons for supporting or opposing the lane with an open-ended verbatim question. Information regarding trip purpose and various modes of transportation used were also collected.

This report details the specific findings of the research.

## Methodology

A 10-minute telephone survey was randomly conducted with individuals residing in one of eight selected zip codes along the I-5 corridor. A sample size of 202 was determined to be a statistically valid sample with a margin of error of approximately +/- 6.89%, with a 95% confidence level. Thus, we can be 95% sure that the answers selected represent the true population within a range of error of +/- 6.89%. A final version of the questionnaire can be found in **Appendix A**.

Calls were conducted with respondents 16 years of age and older, who met the following criteria:

- They must travel on I-5 anywhere between the 99<sup>th</sup> Street interchange and the Interstate Bridge at least three times per week.
- They must typically travel this stretch between 6:00 a.m. and 9:00 a.m. at least one weekday morning.

### **Data Collection**

Image Analysis conducted 209 interviews, reaching a 29.2% incidence of qualification rate. A total of 2,653 calls were made which resulted in 733 contacts. Fifty-one percent (51%) of all contacts were disqualified due to infrequency of travel (Question S2), and 17% did not travel enough during peak morning hours (Question S3). Seven surveys were determined to be

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incomplete and were removed from the results, thus leaving a final sample size of 202 from which to draw our conclusions. For a complete dialing report, please see **Appendix B**.

### Zip-Code Clusters

For purposes of analyzing the results, the eight individual zip codes selected for dialing have been clustered together to provide more specific areas of concentration. Throughout this report, reference will be made to these “clusters” as opposed to individual zip codes. This information is summarized in the following **Table**.

ZIP CODE CLUSTERS		INDIVIDUAL ZIP CODES		
Zip Code	% of Total	Zip Code	n=	% of Total
Battleground	12.4%	98604	25	12.4%
Vancouver	33.7%	98660	9	4.5%
		98661	30	14.9%
		98663	29	14.4%
Salmon Creek/ Hazel Dell	43.1%	98665	34	16.8%
		98685	30	14.9%
		98686	23	11.4%
No. Clark County	10.9%	98642	22	10.9%
<b>TOTAL</b>	<b>100%</b>	<b>TOTAL</b>	<b>202</b>	<b>100%</b>

## Statistical Analysis

The statistical procedures used to produce the findings were completed using Survey System research and statistical software. Significance testing was employed to determine statistically significant differences in findings between segments. Image Analysis used both the 99% and 95% confidence levels. The purpose of this is to show how likely it is that any difference between two variables reflects a real difference in the population, and not just a chance difference in the sample. Any significant differences between groups will be noted only for variables having a sample size greater than 30.

## Executive Summary

The Executive Summary concisely presents the main findings and conclusions derived from this study. To view the more detailed findings, the reader is encouraged to refer to the main body of the report entitled Key Findings.

Image Analysis interviewed 202 respondents, obtaining a 58% Male/42% Female split. Nearly 75% of these respondents fell between the ages of 20 and 54, with the largest concentration of commuter's 20-34 years old. Although all income ranges were represented in the sample, 59% of the respondents had a total household income of \$45,001 or higher. A total of 34% were \$60,000 or over.

Nearly 80% of the residents in the sample commute on I-5 between the 99<sup>th</sup> Street interchange and the Interstate bridge for work, 10% for school or shopping and 10% for other reasons. A large portion of these, 57%, enter from South of the 99<sup>th</sup> Street interchange while almost 30% enter North of 99<sup>th</sup> Street. Thirteen percent (13%) have routes that vary, with roughly 74% of these varied patterns coming from the Vancouver and Salmon Creek/Hazel Dell area.

As one may expect, 96% of those surveyed drive or carpool on I-5, traveling 25.4 minutes one way to their work or school destination on average. This is opposed to the 4.5% taking C-TRAN or Tri-met whose one-way average commute is between 30 and 39 minutes. Sixty-one percent (61%) of all commuters typically drive alone, while 25% usually drive or ride with someone else. The average number of passengers in a carpool is 2.6, with 58% of those who carpool two or more times per week traveling with family members.

Vancouver residents usually drive or ride with someone else the most (37%) when compared to the other areas, like Salmon Creek/Hazel Dell where only 20% of their resident's carpool. This is a significant observation. There is a portion of drivers that drive alone and with others, depending on the situation. This represents 10% of those questioned.

It is in Battleground and North Clark County where citizens typically drive alone (80% and 73% of their population respectively). We found that 78% of commuters who drive alone at least three days a week do so because their daily routines prevent them from carpooling or taking the bus, despite the fact that a large portion of the sample, 94%, are aware of HOV lanes in the Portland/Vancouver area.

Overall support of the WSDOT HOV lane was 58%, with 31% citing it is an excellent idea and 27% indicating it is a good idea. Fifteen percent thought it was a fair idea and 27% thought it was a poor idea. This is similar to previously-conducted random sample surveys for the ODOT HOV lane and for the I-5 HOV Operational Study which have shown support for a southbound HOV lane concept. These surveys indicated that between 53% and 58% of respondents in those surveys stated that the southbound HOV lane is an excellent or good idea.

Approval was exceptionally high with those residents who carpool two or more days a week (73%). Vancouver and Salmon Creek/Hazel Dell primarily support the HOV lane, however it is

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the citizens in North Clark County who rank among the highest who oppose the WSDOT lane. Fifty-five percent (55%) feel it is either a poor or fair idea, with Battleground residents close behind with 48% opposition.

Sixty-six percent (66%) of those surveyed agree that the ODOT HOV lane is an excellent or good idea, with a large percent of support coming from Vancouver with 75%, and Salmon Creek/Hazel Dell, 67%. Forty-seven percent (47%) of Vancouver residents indicated that the ODOT HOV lane was a good idea, which is a significant difference between the percent of respondents who felt the same in Salmon Creek/Hazel Dell.

This data confirms the constant support for the ODOT HOV lane. Five similarly-executed random sample surveys conducted for ODOT's HOV lane between May 1998 (prior to HOV opening) and February 2001 all showed approximately 70% of those surveyed believe the ODOT HOV lane is an excellent or good idea.

More men rate the WSDOT HOV lane as poor, 34%, as compared to women, 17%. This difference between men and women is a significant difference at the 99% confidence level. Another interesting and significant observation is that 46% of respondent's aged 55 plus also view the HOV lane as poor, compared to other ages. This is not surprising as only 56% of this age group commutes to work. They also have a shorter average commute than other age groups and don't tend to carpool.

A separate question was asked regarding whether the Vancouver HOV lane should be permanently adopted. On the whole, 48% of respondents believe the Vancouver HOV lane should be permanently adopted. Fifty-six percent (56%) of Vancouver residents support the adoption, as do 48% of members of the Salmon Creek/Hazel Dell zip code cluster. The strongest opposition comes from Battleground, 48%, and North Clark County, 46%, while 16% of the sample is undecided. Fifty-six percent (56%) of female residents support the permanent lane, while the men are split 42% yes - 43% no, with 15% undecided.

The results, based on those commuters traveling alone, indicate that 46% of them are against the idea of permanent adoption of the WSDOT HOV lane, while 20% are undecided. Among the group of respondents who usually travel with others, 74% agree the lane should be permanently adopted. There are significant differences between these groups of commuters, when looking at conclusions of both their agreement and disagreement.

The reasons most often cited for support of the WSDOT permanent HOV lane adoption were (in order of frequency):

<i>Encourages carpooling/benefits car-poolers</i>	<i>43%</i>
<i>Less traffic tie ups/less cars</i>	<i>25%</i>
<i>Get there faster/save time</i>	<i>23%</i>
<i>Traffic moves better/faster</i>	<i>21%</i>

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The reasons most often cited for opposition of the WSDOT permanent HOV lane adoption were (in order of frequency):

<i>Would cause more delays/worsen the problem</i>	<i>28%</i>
<i>Not fair to single drivers</i>	<i>21%</i>
<i>Not used enough/waste capacity of lane</i>	<i>15%</i>
<i>Bridge/Delta Park area is problem</i>	<i>13%</i>

Respondents were asked to rate seven possible incentives that may or may not encourage commuters to carpool or take the bus. Respondents used a 1-5 scale, with one (1) being Not Attractive and five (5) being Extremely Attractive. Three (3) was the neutral point. These scores were combined to obtain an average for each of the seven incentives. The overall average score was 3.5, which indicates that residents felt that all incentives were somewhere between neutral and somewhat attractive. Looking at the incentives only based on the Extremely Attractive and Somewhat Attractive ratings combined, respondents cited the following:

### **Extremely & Somewhat Attractive**

Free bus tickets for a trial period	65%
Discounted downtown parking	63%
More convenient Park and Ride locations	59%
Discounted bus tickets	56%
More parking spaces at an existing Park and Ride lot	52%
Special close in parking at work for carpools	51%
Assistance in finding a compatible carpool partner	36%



# DEMOGRAPHICS

## Respondent Classification

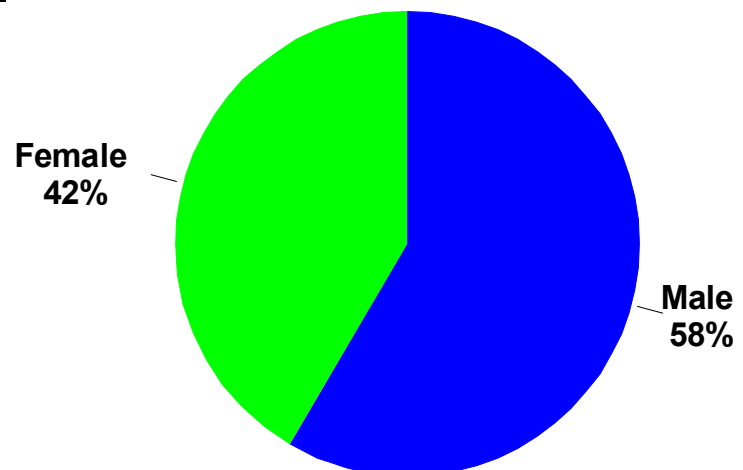
### Age and Gender of the Sample

The demographic breakdown of the sample is displayed in the following **Tables** and **Chart**. Close to 75% of the respondents fell between the ages of 20 and 54. The age **Table** below shows the percent breakdown of each age group within the four zip-code clusters.

Respondent Age	
Age	Total
16-19 years	3.0%
20-34 years	26.7%
35-44 years	23.3%
45-54 years	22.3%
55-64 years	16.8%
65 or over	7.9%

Following is a breakdown of completes by zip-code cluster, as well as a gender pie **Chart**, which simply indicates the male/female split that was achieved by random dialing. Within the general population we normally find a 48% male, 52% female ratio, however since we elected not to set gender specific restrictions on data collection, our results reflect a slightly higher proportion of male responses. This is likely to be representative of the population that commutes on I-5 between 6:00 a.m. and 9:00 a.m., as we excluded respondents who did not meet this criteria.

Zip Cluster	n=
Battleground	25
Vancouver	68
Salmon Creek/Hazel Dell	87
No. Clark County	22
<b>TOTAL</b>	n=202

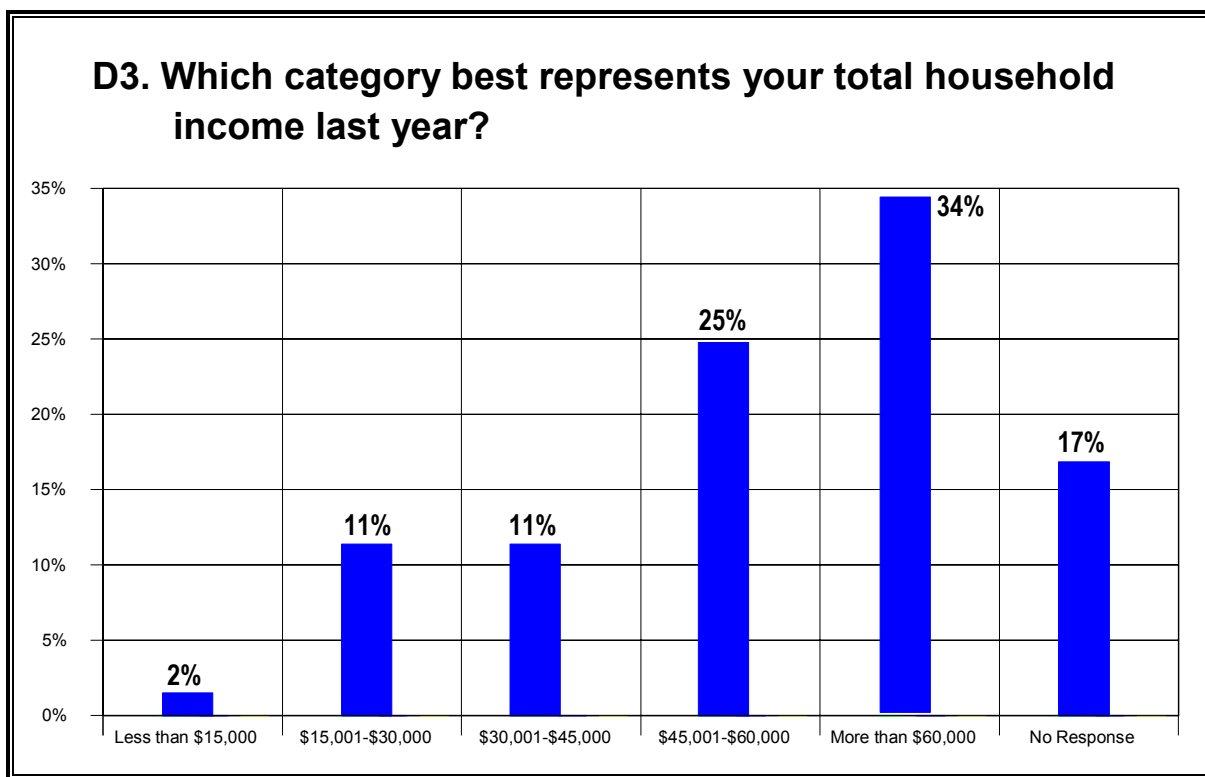


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### Household Income

The income **Graph** below makes a strong distinction between the income categories represented in the sample. Thirty-four percent (34%) of all respondents had a total household income of \$60,000 or higher last year. This is second to the income group of \$45,001 to \$60,000, which is represented by 25% of respondents. We spoke with only three respondents with an income of \$15,000 or less, which equated to 2% of the sample. All three of these respondents were in the Vancouver zip cluster, which is a significant difference compared to zero respondents found in the Salmon Creek/Hazel Dell area.

As is often typical given the sensitive nature of this particular question, 17% of respondents declined to answer.



# KEY FINDINGS

## Respondent Characteristics

### **Respondent's Entrance onto I-5**

The majority of respondents, 56.9% enter I-5 southbound **South** of the 99<sup>th</sup> Street interchange, as opposed to 29.7% who enter the same stretch of road from the **North**. The other 14.4% vary their entrance onto I-5 depending on the day of the week. Of significant difference is the fact that 80.9% of Vancouver residents enter from the South when compared to those respondents in the Salmon Creek/Hazel Dell zip-code cluster, 63.2%. This is noted at the 95% confidence level.

### **Purpose of I-5 Travel**

Nearly 78% of respondents are traveling for work on I-5 southbound in the area of the trial HOV lane during the hours of 6:00 a.m. to 9:00 a.m. Salmon Creek/Hazel Dell residents have the largest portion of travelers, 82.8%, with Battleground members' just behind with 80%. Seventy-six percent (76%) of Vancouver residents travel this stretch of I-5 for work, as does 59.1% of North Clark County. Of the remaining 22% of travelers, the other most frequent reasons for travel were for medical purposes, to visit family and friends, or other reasons aside from shopping or going to school.

### **Mode of Transportation**

Ninety-six percent (96%) of the residents interviewed primarily drive or carpool to their destinations most often. Of the population surveyed, we found 3.5% who use C-TRAN either from a Park & Ride or other means, and 1% who ride Tri-Met. The majority of respondents commuting via mass transportation came from the Vancouver zip-code cluster.

### **Average Commute Time**

The average length of time a traveler spends commuting to work, school, shopping, or other activities, one-way, is 25.4 minutes according to survey responses. The longest commute is for residents coming from Battleground at 33.8 minutes, while North Clark County has the second lengthiest commute of 29.8 minutes. Salmon Creek/Hazel Dell respondents traveled an average of 23.9 minutes while Vancouver residents have the shortest average commute of 22.8 minutes.

### **Commuting Habits**

Sixty-one percent (61%) of the residents we spoke with typically drive alone, and 24.8% usually drive or ride with someone else. We found 36.8% of these car-poolers from the Vancouver zip cluster, which is significantly different than the 19.5% of car-poolers from the Salmon Creek/Hazel Dell area. Ten percent (10%) of those interviewed both drive alone, and with someone else.

Eighty percent (80%) of the residents in Battleground drive alone, while the remaining 20% drive or ride with someone else. Interestingly, only 51% of Vancouver residents drive alone,

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although 8.8% of them both drive alone and with someone else. Respondents in Vancouver make up 28.6% of bus users, while 71.4% of the bus users come from Salmon Creek/Hazel Dell. Overall bus ridership was 3.5%.

Seventy-one respondents indicated they either drive/ride with someone else, or do this in addition to driving alone, and were asked if they usually ride with someone else more than two days a week. Eighty percent (80%) answered yes, with the majority, 47.4%, of these folks coming from the Vancouver area. Seventy percent (70%) of these residents are driving with passengers' sixteen years of age or older. The Salmon Creek/Hazel Dell residents who carpool two days or more travel with individuals under the age of sixteen 25% of the time. Sixty percent (60%) of commuters from North Clark County travel with children under the age of 16. We found that no one in Battleground rides with someone less than two days a week.

Most often the travel companions of these commuters are family members, 57.9% of the time, while 24.6% of the total population sampled carpool with non-family members. Vancouver residents travel the most with family members, 48.5%, as opposed to roughly 10% of family commuters in both Battleground and North Clark County.

The number of total carpool passengers varies from an average of 3.2 people in North Clark County to 2.4 people in Vancouver. The average across all four zip-code clusters is 2.6 passengers.

We found 138 respondents who specified they drive alone or ride with someone less than two days per week. Seventy-seven percent (77%) of this group indicated that their daily routine prevents them from carpooling or riding the bus. The largest portion of these responses came from the Salmon Creek/Hazel Dell area, 42.1% while only 12.1% of respondents in North Clark County have routines that prevent them from carpooling or taking the bus.

## **Awareness & Acceptance of the HOV Lane**

### **HOV Lane Awareness**

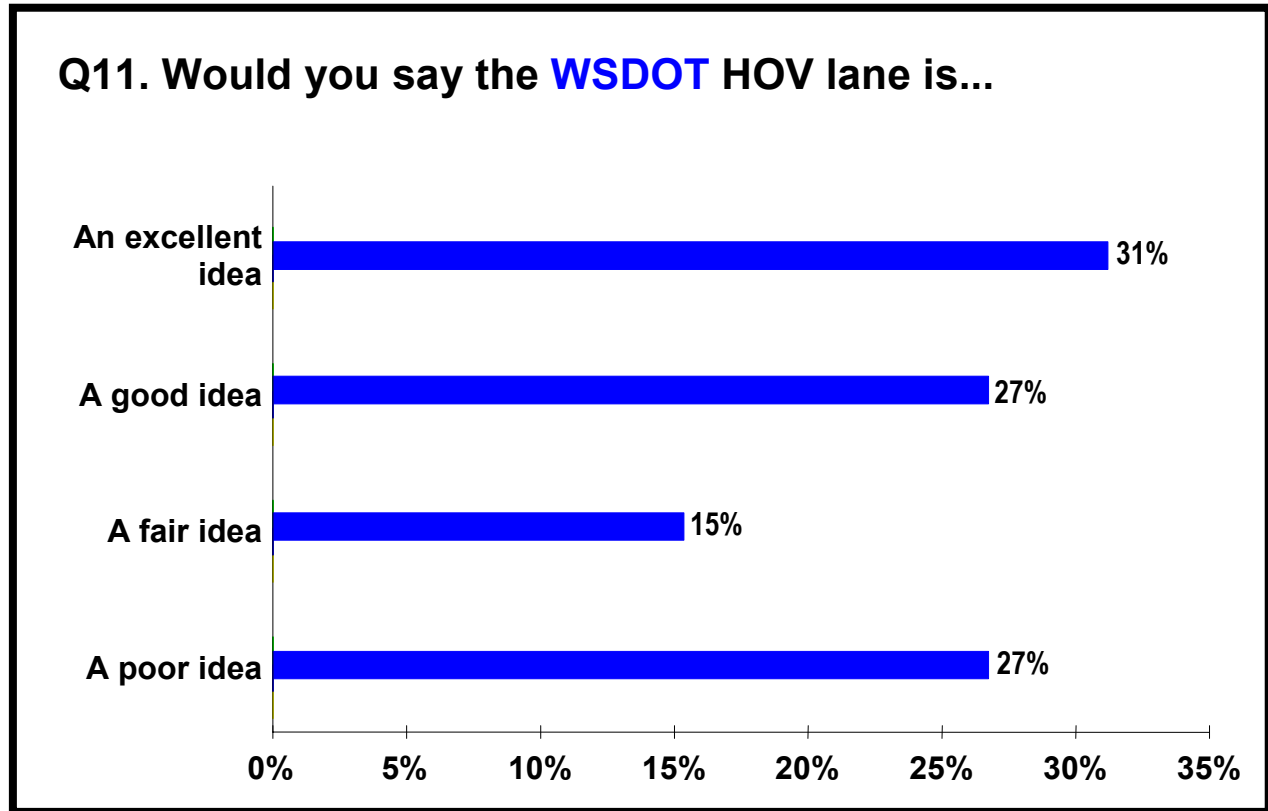
Of the 202 respondents interviewed, 189 of them were aware of HOV lanes in the Portland/Vancouver area. This represented 93.6% of the sample. Everyone in Battleground was aware of HOV lanes in the metropolitan area, and Salmon Creek/Hazel Dell residents responded with 95% awareness.

### **I-5 Southbound HOV Acceptance**

Respondents were asked to indicate their level of support for the Washington Department of Transportation I-5 Southbound HOV lane. Overall acceptance of the lane was slightly lower than the approval rating of the ODOT I-5 Northbound lane. Acceptance, defined as an excellent or good idea, was 58% for the Vancouver HOV lane, 8% lower than approval for ODOT's Northbound HOV lane. Observing just the responses for the WSDOT lane as an excellent idea, we found that acceptance was slightly higher, by 1%, than the Northbound's excellent rating. However, community members feeling the Southbound lane is a good idea was 8% lower compared to the Northbound lane.

Fifteen percent believe that the Vancouver HOV lane is a fair idea.

Additionally, opposition for the Southbound lane, those who rated it poor, was 27% higher than the rating of 21% for the Northbound lane. This negative change came entirely from residents in Battleground, the only community to feel the idea of a WSDOT lane was less attractive than the ODOT lane.



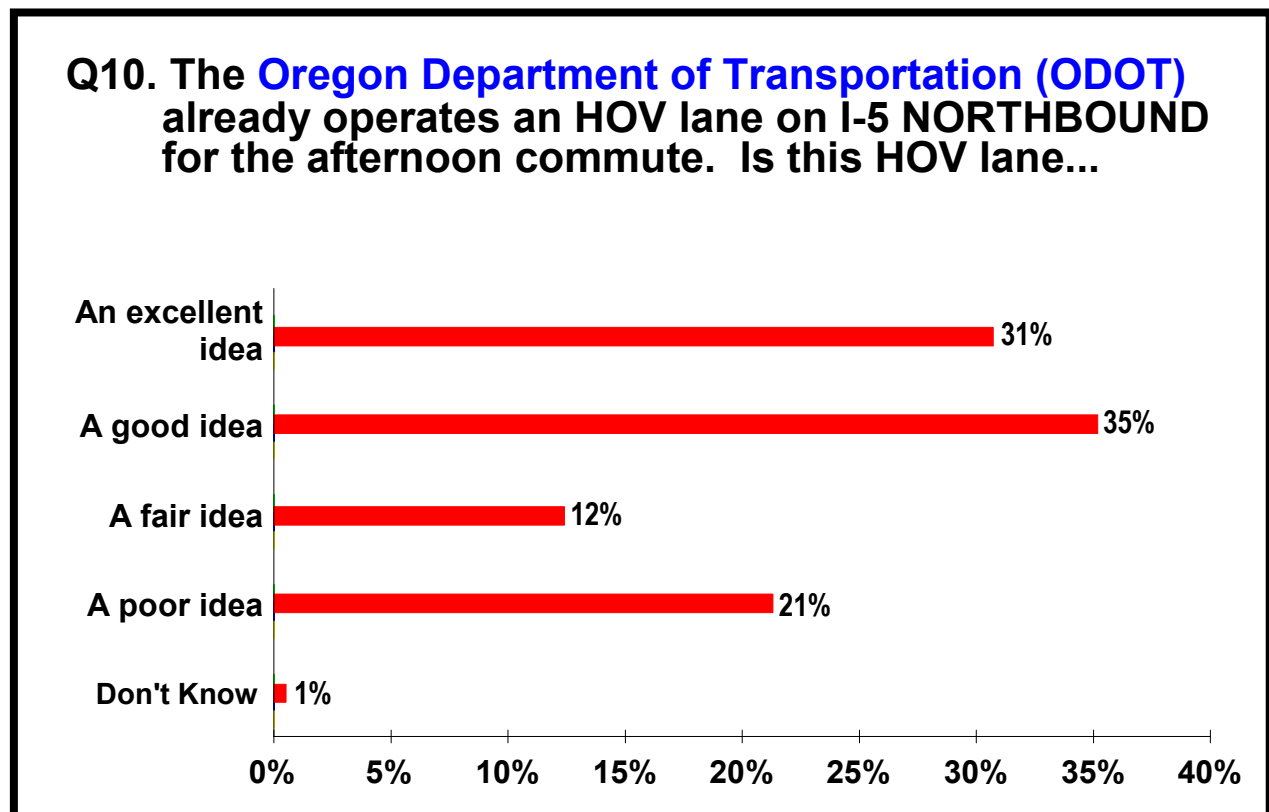
Looking at each community individually, 61% of Salmon Creek/Hazel Dell residents agree the WSDOT HOV lane is an excellent or good idea. Sixty percent (60%) of Vancouver residents also agree, 46% for North Clark County and 52% in Battleground.

#### **I-5 Northbound HOV Acceptance**

Overall, 65.8% of respondents feel that the Oregon Department of Transportation's HOV lane on I-5 Northbound is an excellent or good idea. This supports the results obtained by previous ODOT research conducted which reports a stable 70% approval rating. Nearly 52% of those that believe it is an excellent idea reside in Salmon Creek/Hazel Dell, 31% in Vancouver, 11% in North Clark County, and the balance, 6%, in Battleground. It should be noted that 21% of all answers fell in the "poor idea" category. An overall graphic representation of the resident's acceptance of the ODOT HOV lane can be seen in the following **Chart**.



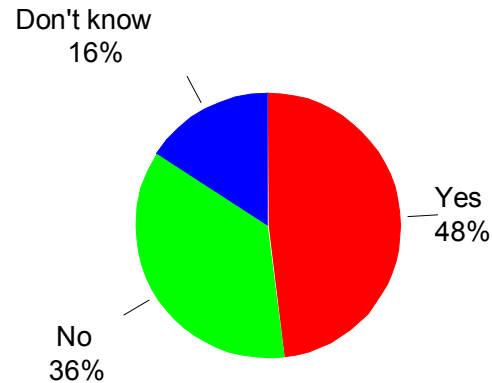
Forty-seven percent (47%) of Vancouver residents indicated that the ODOT HOV lane is a good idea, which is a significant difference compared to the number of individuals, 29.9%, in Salmon Creek/Hazel Dell who felt the ODOT HOV lane was a good idea.



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### Reaction to Permanent Adoption

We specifically asked respondents if the WSDOT I-5 Southbound lane should be permanently adopted. Vancouver had the strongest number of supporters for permanent adoption, with 55.6% of responses indicating yes. The residents of Salmon Creek/Hazel Dell support the lane with 48.3%, 40.9% for North Clark County and dropping to 32% in Battleground. We found the following overall results:



### Explanations of Acceptance/Opposition

Based on respondent's acceptance or opposition of permanently adopting the WSDOT HOV lane, we asked them to explain their views in an open-ended question format. Residents who responded positively or negatively to the HOV lane were asked to expand on their reasons. Thirty-six percent (36%) of respondents were unsure of their feelings regarding the permanent adoption. For this reason, we asked for both positive and negative clarification. Many respondents gave more than one favorable or non-favorable reason behind their views. For this reason, the number of responses we received is higher than our base of n=202.

The specific verbatim comments can be found in **Appendix C**.

### Reasons in Favor of Permanent Adoption

The most common reason cited for approval of the WSDOT Southbound HOV lane was *"it encourages carpooling and it benefits car-poolers,"* at 43.2% of responses. Salmon Creek/Hazel Dell's residents made up 48% of this answer. The second most mentioned reason was *"less traffic tie ups/fewer cars on the road,"* where the majority of Battleground community members acknowledged this agreement with 58.3% of their responses. Overall, *"less traffic tie ups/fewer cars on the road"* made an overall statement of 24.8%

*"Getting there faster"* was another answer found 23.3% of the time, along with *"traffic moves better/faster"* at 20.8%. Residents indicating that traffic would *"move better/faster"* seemed to have a more general traffic approach in the wording of their answers, whereas respondents citing *"getting there faster"* seemed to answer on a more personal basis.

Only 5.6% of the answers mentioned that the HOV lane would make a positive *“impact on the environment,”* along with only 4.8% who felt it would be *“good for buses.”* Approximately 10% of respondents were in favor of the lane adoption overall, but were unable to fully respond to our open-ended question. These individuals had some reservations, and felt that more studies were needed to convince them the HOV lane was the right thing to do.

#### **Reasons in Opposition of Permanent Adoption**

Nearly 28% of respondents agreed the adoption of the HOV lane would *“cause more delays or worsen the problem.”* Exactly half of these responses came from Salmon/Hazel Dell residents, as opposed to only 12% coming from Vancouver. *“Not fair to single drivers”* was mentioned in 20.9% of all responses, with the majority of agreement from 29.2% of Vancouver residents.

Another common response was that the lanes would *“not be used enough or would waste capacity of a lane,”* representing 15% of responses. Twelve percent (12%) of all comments indicated that *“the bridge and the Delta Park area were the traffic problems,”* and an additional 12.8% felt that *“traffic was not that bad.”* Together the residents of Vancouver and Salmon Creek/Hazel Dell made up the majority of responses citing that the *“bridge is not the problem”* as well as the majority of comments regarding *“traffic not bad.”*

## **Incentive to Encourage Carpooling**

Respondents were asked to rate seven possible incentives that may encourage commuters to carpool or take the bus, using a five-point scale. At the high end of the scale was Extremely Attractive (5) and at the low point was Not Attractive (1). A rating of three (3) was considered to be neutral. The incentives were rotated during data collection to avoid any order bias.

The scores were combined to obtain an average for each of the seven incentives. The overall average score was 3.5, which indicates that on the whole, residents felt the incentives ranked somewhere between neutral and somewhat attractive.

The seven incentives are discussed below in order of the average score obtained for each, highest to lowest. There were only a small percentage of respondents who declined to answer a particular incentive. They are therefore not included in the average scores. For purposes of analyzing data, the top two answers (5 and 4) have been considered Attractive, and the bottom two answers (1 and 2) are considered Not Attractive.

**Free Bus Tickets for a Trial Period:**

**3.77 Average Score**

Free bus tickets for a trial period ranked the highest in terms of attractiveness for all seven incentives, with 65% of responses. As high as 76% of the residents in Battleground felt as such, with Salmon Creek/Hazel Dell and Vancouver falling at 69% and 65% respectively. North Clark County ranks this incentive the lowest with 50% of its population agreeing it is not an attractive incentive, of an overall 21%. Free bus tickets had a lower than usual rating of neutral, at 14%. On average, this incentive rated just below the somewhat attractive rating of four (4).

**More Convenient Park & Ride Locations:**

**3.62 Average Score**

The majority, 59% of residents we interviewed, felt that more convenient Park and Ride locations would be an attractive incentive to encourage carpooling or bus riding. North Clark County was just slightly lower than the other communities, in which roughly 60% of each area felt more convenient Park and Ride locations would be attractive. Nearly 20% of respondents found these convenient locations to be an unattractive concept. Twenty-two percent (22%) felt they were neither attractive nor unattractive, lowering the average rating of this incentive to 3.62.

**Discounted Downtown Parking:**

**3.61 Average Score**

Sixty-three percent (63%) of respondents felt carpooling would be encouraged with discounted parking. The range of answers spread from 69% in Vancouver to 50% in North Clark County. Overall, almost 25% felt carpooling was a poor incentive to encourage carpooling. There is significant difference, at the 95% confidence level, between the 25% of Salmon Creek/Hazel Dell residents who feel discounted downtown parking is not at all attractive as opposed to the 12% of Vancouver residents who felt the same.

**Discounted Bus Tickets:**

**3.54 Average Score**

The data reflects that 56% of those interviewed feel discounted bus tickets would be an attractive incentive to carpoolers. Agreement came solidly from Battleground, Vancouver and Salmon Creek/Hazel Dell with nearly 60% in each, however North Clark County swings the other way, with 41% of respondents feeling it is an unattractive incentive. Overall, 25% of respondents felt that discounted bus tickets were not attractive. Eighteen percent (18%) of the residents we spoke with indicated that discounted bus tickets were neither attractive nor unattractive. Averaged together, this incentive rated 3.54.

**More Parking Spaces at an existing Park and Ride Lot:**

**3.45 Average Score**

Fifty-two percent (52%) of respondents united in stating that more parking spaces at existing Park and Ride lots would be an attractive incentive for carpoolers. Of this, 32% of the residents in Vancouver voiced their opinion as somewhat attractive, as opposed to 15% in Salmon Creek/Hazel Dell, which is a significant difference. We found that only 23% of all respondents felt these additional parking spaces would not entice carpoolers, with the largest opposition coming from North Clark County with 41%. Nearly 26% of all answering residents felt these parking spaces were neither an attractive or unattractive incentive. This particular concept was rated highest in the neutral category (3), of all the incentives.

**Special Close-in Parking at Work for Carpools:**

**3.33 Average Score**

Half, 51%, of respondents felt having special close-in parking at work for carpoolers was an attractive incentive, and 20% of the sample was neutral. Again, Vancouver residents were most likely to approve of this idea; with 59% of their community citing this incentive was attractive. Battleground was among the highest percentage who feel opposite, indicating that special close-in parking would not be an attractive incentive, with 40% of responses. Overall, 30% of respondents felt this special close-in parking was unattractive. One percent (1%) of the sample had no response.

**Assistance in Finding a Compatible Carpool Partner:**

**2.91 Average Score**

Thirty-six percent (36%) of respondents felt this was an attractive incentive, with the highest concentration of agreement from residents of Salmon Creek/Hazel Dell representing 40% of their zip-code cluster. Those who felt that the assistance finding carpool partners would not encourage carpooling made up nearly 40% of responses. Battleground, Salmon Creek/Hazel Dell and North Clark County all unilaterally agreed, each having at least 43% of responses as not attractive. Only 31% of Vancouver residents indicated the assistance would be unattractive. It is not surprising that with the combination of a lower approval rating of 36% and a neutral score of 25% in the neither attractive nor unattractive category, that assistance finding a carpool partner had the lowest average score of 2.91.

# APPENDIX A

## Questionnaire

**WSDOT HOV PUBLIC OPINION SURVEY**

Project #: 8179-0210

Male Female [4]

Hello, my name is \_\_\_\_\_ and I'm calling on behalf of the Washington State Department of Transportation. We are conducting a brief survey on local transportation issues and would like to get your opinion.

**S1. Are you 18 or older? [IF NO:] May I please speak with someone who is? [REPEAT INTRODUCTION IF NECESSARY]**

[IF UNDER 18:] Because you are under 18, I need to ask for parental permission for you to participate in this survey. The survey asks questions about transportation topics.

**S2. Do you travel on I-5 anywhere between the 99<sup>th</sup> Street interchange and the Interstate Bridge at least three times per week?**

Yes 1  
No 2 [THANK AND TERM]

**S3. During a typical week, do you travel this I-5 southbound stretch between 6 and 9 a.m. on at least one weekday morning?**

Yes 1  
No 2 [THANK AND TERM]

-----  
Q1. Which best describes your typical travel on I-5 southbound? You ...

Enter I-5 **north** of the 99<sup>th</sup> Street interchange 1 [5]

Enter I-5 **at or south** of the 99<sup>th</sup> Street interchange 2

Or, your entrance varies by your daily commute 3

Q2. For what reasons are you usually traveling on I-5 between 99<sup>th</sup> Street and the Interstate Bridge? (Accept one answer only)

Work 01  
School 02 [6-7]  
Shopping 03  
Don't know [THANK AND TERM]  
Other \_\_\_\_\_

# WSDOT HOV Lane Community Perception Study

Q3. What form of transportation do you most often use while commuting on I-5?

Drive/carpool	01	
Ride C-TRAN from a Park & Ride	02	
Ride C-TRAN by other means	03	[8-9]
Ride Tri-Met	04	
Do not commute regularly	<b>[THANK AND TERM]</b>	
Other _____		

Q4. On average, how much time (in minutes) does it take you to commute to work or school (or shopping) – one way? [IF RESPONDENT ASKS, "Since when?" SAY: "On your typical commute in the last month."]

\_\_\_\_\_ (minutes) [10-11]

Q5. A car-pool lane called a *high occupancy vehicle* or HOV lane is reserved for buses, cars carrying at least two people, and motorcycles during rush hour. Are you aware of any HOV lanes in the Portland/Vancouver area?

Yes	1	[12]
No	2	

**Q6. Do you usually drive alone or do you usually drive or ride with someone else while on I-5?**

<i>Do Not Read</i>	Drive/ride with someone else	2 [continue]
<i>Do Not Read</i>	Both (1 & 2)	3 [continue]
<i>Do Not Read</i>	Ride the bus	4 [GO TO Q10]**

Q7a. Do you usually ride with someone more than two days per week?

Yes	1 [continue]	[14]
No	2 [GO TO Q9]	

Q7b. In general, are they...

16 years of age or older	1	[15]
Under the age of 16	2	
Or both	3	

Q7c. Are the people with whom you ride family members or non-family members?

Non-family members	2
Both	3



# WSDOT HOV Lane Community Perception Study

Q8. If you carpool, how many people are generally included in your carpool?

\_\_\_\_\_  
(do not accept a range)

Skip to Q10\* [17-18]

Q9. **[NON-CARPOOLERS ONLY – ANSWERED “DRIVE ALONE” TO QUESTION 6 and Q7a:]**  
You mentioned you seldom carpool or take the bus. Does your work or daily routine prevent you from carpooling or riding the bus?

No	2	
Sometimes	3	[21]

Q10. The Oregon Department of Transportation (ODOT) already operates an HOV lane on I-5 NORTHBOUND for the afternoon commute. Is this HOV lane ...[READ LIST]

An excellent idea	1	
A good idea	2	
A fair idea	3	
Or a poor idea	4	[22]

Q11. In the fall of this year— the Washington State Department of Transportation (WSDOT) will be opening an HOV lane on I-5 southbound between 99th Street and the Interstate Bridge for a test period of approximately 1 year. The HOV lane restrictions will apply between 6 and 9 a.m. Would you say the HOV lane is...[READ LIST]

An excellent idea	1	
A good idea	2	
A fair idea	3	
Or a poor idea	4	[23]

Q12a. Do you think the I-5 southbound HOV lane should be permanently adopted by the Washington Department of Transportation?

Yes	1	[GO TO Q12b]
No	2	[GO TO Q12c]
<i>Do Not Read:</i> Don't Know	3	[GO TO Q12b/Q12c]

[24]

Q12b. [IF YES:] Why do you favor the I-5 HOV lane? [GO TO Q13]

*Be sure to clarify!*

[25-32]

# WSDOT HOV Lane Community Perception Study

Q12c. [IF NO:] Why do you oppose the I-5 HOV lane?

[33-40]

Q13. Now I'm going to read a list of seven ways that may encourage commuters to carpool or take the bus. Using a five-point scale, where *1* means *not at all attractive* and *5* means *extremely attractive*, and using any number in between, I want you to rate how attractive each of the following incentives would be **in encouraging commuters to carpool or take the bus...** [ROTATE].

*NOT Attractive*

*EXTREMELY Attractive*

1      2      3      4      5

- a. How attractive would assistance in finding a compatible carpool partner be? \_\_\_\_\_ [41]
- b. How attractive would special close-in parking at work for carpools be? \_\_\_\_\_ [42]
- c. How attractive would more convenient Park & Ride locations be? \_\_\_\_\_ [43]
- d. How attractive would discounted bus tickets be? \_\_\_\_\_ [44]
- e. How attractive would free bus tickets for a trial period be? \_\_\_\_\_ [45]
- f. How attractive would discounted downtown parking in Portland be? \_\_\_\_\_ [46]
- g. How attractive would more parking spaces at an existing Park & Ride lot be? \_\_\_\_\_ [47]

## DEMOGRAPHICS

The next few questions are for classification purposes only, and will be used strictly to group like responses together.

D1. First, could you tell me . . . into which of the following age groups do you fall?

- |             |                 |      |
|-------------|-----------------|------|
| 16 to 19    | 1               |      |
| 20 to 34    | 2               | [48] |
| 35 to 44    | 3               |      |
| 45 to 54    | 4               |      |
| 55 to 64    | 5               |      |
| 65 or over  | 6               |      |
| No response | 7 [Do not read] |      |

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D2. And what is your ZIP code?

98642	1	98665	5
98660	2	98685	6
98661	3	98686	7
98663	4	98604	8

Other \_\_\_\_\_

[49]

D3. Please stop me when I read the category that best represents your total household income for last year?

Less than \$15,000	1	
\$15,001 - \$30,000	2	
\$30,001 - \$45,000	3	
\$45,001 - \$60,000	4	
More than \$60,000	5	
No response	6	[Do not read]

[50]

Finally, may I have your name?

Respondent's Name:	
Respondents Phone: (record from sample)	(360)

***Thank you very much for your time!*** (HANG UP)

**INTERVIEWER:** Please record respondent's income category from SAMPLE:

Less than \$15,000	1
\$15,001 - \$30,000	2
\$30,001 - \$45,000	3
\$45,001 - \$60,000	4
More than \$60,000	5
No Data Provided	6

[51]

Interviewer Name:		Date Conducted:	
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# APPENDIX B

## Dialing Report

## Dialing Report

Disposition	Total Calls	Mon. 9/17	Tue. 9/18	Wed. 9/19
No Answer/Answering Machine (NA/AM)	1099	23	486	590
Busy (BZ)	122	2	50	70
Respondent Not Available (RNA)	96	7	47	42
Computer Tone/Fax (CT)	28	2	10	16
Disconnected/Non-Working # (DIS)	154	8	84	62
Business Phone (BIZ)	23	0	11	12
Initial Refusal (IR)	375	8	201	166
Language Barrier (LB)	23	0	11	12
S2. Does Not Travel I-5	377	17	192	168
S3. Does not Travel 6-9am	128	2	71	55
Q2. Does not Know Reason of Travel	1	0	0	1
Q3. Does Not Commute Regularly	13	0	10	3
Mid-Interview Terminate (MID)	5	0	2	3
Complete (CM)	209	6	109	94
<b>Total Calls Made:</b>	2653	75	1284	1294
<b>Number of Contacts Made:</b>	733	25	384	324
<b>Incidence of Qualification:</b>	<b>29.20%</b>	<b>24.00%</b>	<b>28.91%</b>	<b>29.94%</b>

# APPENDIX C

## Open End Verbatims

## Open End Code Frame

<b>Q2 - Code List</b>	<b>For what reasons are you usually traveling on I-5 between 99th Street and the Interstate Bridge?</b>
04	Medical Reasons/Visit Doctor
05	Visit family and/or friends
07	Other

<b>Q12b - Code List</b>	<b>Why do you favor the I-5 HOV lane?</b>
01	Less traffic/less tie ups, less cars on road
02	Get there faster/save time
03	Encourages carpooling/benefits carpoolers
04	Better for environment
05	Needs more testing/has reservations/not yet convinced
06	Works well/good idea/works in Portland
07	Traffic moves better/faster
08	Good for buses
09	Other

<b>Q12c - Code List</b>	<b>Why do you oppose the I-5 HOV lane?</b>
01	Not used enough, waste capacity of a lane
02	Would cause more delays/worsens problem
03	Not fair to single drivers/those who can't carpool/bus
04	Want more lanes/not enough lanes
05	Bridge is the problem, Delta Park area/need new bridge, bottleneck is at bridge
06	It gets abused/not used properly
07	Don't want to lose a lane
08	Don't want to pay for something I don't use/taxes
09	Traffic not bad /not needed
10	It doesn't encourage carpooling
11	Portland HOV is not effective
12	Other

## Q2 – Travel Reasons, Other Specify

Respondent #	Question #	Open End Verbatim	Code
022	Q2	Library Research	07
025	Q2	Goes to doctor 3 times a week.	04
028	Q2	Recreation purposes	07
033	Q2	Go to other side	07
046	Q2	retired, goes to Portland almost everyday to see his ill sister in a nursing home in Portland.	05, 07
048	Q2	Personal business	07
069	Q2	Family	05
076	Q2	Retired- lots of things.	07
097	Q2	Retired-varies	07
111	Q2	Doctors' visits	04
118	Q2	Going to the Doctor's or a meeting.	04
122	Q2	Medical – varies	04
123	Q2	Retired, out to breakfast.	07
124	Q2	Doctor or out to breakfast every morning.	04, 07
140	Q2	I go to dialysis in Portland.	04
143	Q2	Medical treatment	04
171	Q2	I visit my son in Portland.	05
200	Q2	I visit my family and friends in Portland.	05
205	Q2	I have medical appointments in Portland.	04
	Q2		



## Q12b – Approve HOV, Open End Verbatims

Respondent #	Question #	Open End Verbatim	Code
002	12b	I think if you're cruising straight through, you should be able to use the HOV lane to prevent being stuck behind someone going slow or switching lanes.	9
005	12b	When I have people in my car I can get through traffic faster.	02
007	12b	It will help with traffic tie ups.	01
008	12b	Encourages people to ride together.	03
009	12b	Won't have to be in all that traffic!	01
011	12b	It will make getting to work faster. Less tie-ups.	01, 02
012	12b	Saves time for those who are carpooling and for buses too.	02, 08
013	12b	Encourages more people to carpool and decreases air pollution.	03, 04
014	12b	Good for traffic jams. Alleviates traffic. Makes the commute faster.	01, 02
015	12b	Alleviates congestion.	01
018	12b	People that carpool deserve to get there faster.	02, 03
019	12b	Have been stuck behind traffic. It is more efficient to have a HOV lane when it is busy.	01
020	12b	I've seen it work fairly well if you're coming home with someone. I think that it is a pretty good idea.	06
021	12b	Works good in Portland. Puts people that have more than one person in their car ahead of people just out shopping.	06, 03
022	12b	Makes more people carpool and think about how they get to work, rather than a single person in each vehicle.	03
024	12b	To promote carpooling, I don't carpool simply because of the convenience of being able to listen to whatever music I want. I think that others that do carpool should get a break by getting their own lane.	03
025	12b	It would cut down on the amount of cars on the road. If people carpool together that work in the same vicinity, there will be less traffic.	01
026	12b	If there were a HOV lane it wouldn't take so long to get my daughter to school. It would reduce traffic.	01, 02
027	12b	It is a good idea because it will speed up traffic because there will be less cars on the road.	01, 07
028	12b	Traffic moves faster because there are less cars on the road when people carpool.	01, 07

WSDOT HOV Lane Community Perception Study

Respondent #	Question #	Open End Verbatim	Code
031	12b	It will help people to carpool. It might also help with traffic.	01, 03
032	12b	I want to see how it works out. I drive a small school bus.	05
033	12b	Cuts down on traffic during rush hour.	01
034	12b	It is a little reward for people who carpool.	03
035	12b	I believe it is the most effective and efficient way. It is the best alternative with the dollars we have and I think it is the best idea to discourage single person travel.	03, 06
037	12b	I think that it is GREAT! Allows traffic to flow quickly through during busy times.	07
039	12b	It should be a help in having people think more about carpooling.	03
042	12b	Yes because it will encourage people to carpool and that will mean that there will be less cars on the road.	01, 03
044	12b	Frees up traffic for me because most people are in the carpool lane.	02
045	12b	Well, being that there's such heavy traffic from people merging on it. Think it would keep people from moving easier. Plus, I think that everyone should carpool.	03, 07
051	12b	Traffic moves a whole lot faster. Semi-trucks aren't in the HOV lane.	07
055	12b	Only if it gets used! Not if it just congest the other traffic. There is no purpose congesting the rest of the lanes.	05
059	12b	It relieves a lot of congestion. When it is convenient for people to carpool, it saves time.	01, 02
060	12b	Carpooling is faster. I would like to see if it works, though. It could be a good idea.	02, 05
063	12b	If we can get people to abide by the rules it would work! I want to confirm that it will work and that it is a good idea. I think it could be effective.	05, 06
064	12b	Well, obviously it's a mini-reward for car-poolers. Like being on a bus, a special perk, better for the environment, less fumes from cars.	03, 04, 08
065	12b	It is because if you ride with 2 or more people, you're saving gas because you're making it so there are less cars on the road. That's a good advantage for those who carpool.	01, 03
067	12b	Encourages carpooling. Faster traffic when people carpool.	03, 07
068	12b	Helps get people to carpool.	03
069	12b	Good idea because I-5 gets too jammed up. Gets buses through faster.	07
072	12b	It urges people to carpool and then get to work faster.	02, 03

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Respondent #	Question #	Open End Verbatim	Code
074	12b	Makes traffic flow better. It also cuts down on people weaving in and out of traffic.	07, 09
076	12b	People need help getting to work on time. Doesn't concern me but car-poolers deserve the advantage.	03
078	12b	I think that it clears up traffic. In case of emergency, people can use it without getting a ticket.	01
079	12b	When I do have to go to Portland, I carpool and it saves a lot of time. We carpool if we go to Portland.	02
080	12b	Great way to move people. Also, will make more people think about carpooling.	03, 06
083	12b	Promotes carpooling and is good for the environment, less cars equals less fumes.	03, 04
084	12b	I think that it is VERY important to get people out of their cars and into carpools or on the bus.	06
086	12b	I am fully supportive of carpools and public transportation but I wish that there were something better than CTran. An HOV lane would encourage the flow to public transportation and carpools.	03
087	12b	It moves traffic along quickly.	07
089	12b	I feel that the HOV lane will speed up traffic because more people would be enticed to carpool.	03, 07
090	12b	It would get more people to carpool and gives the ones who do a quicker commute.	03
092	12b	Makes for less traffic at high usage hours.	01
093	12b	Yes but it depends on how much it backs up traffic.	05
096	12b	We need to do something! This would be a great way to combat traffic.	06
102	12b	I am not sure if I am convinced it is the right thing.	05
104	12b	Well, I mean for those who carpool it makes it nicer and for those that don't, it frees up the lanes a little bit.	01, 03
105	12b	Because I've been stuck in traffic before and know how irritating it gets while my kids are in the car.	01
106	12b	Encourages less vehicles on the road, I would hope.	01
107	12b	Because I think that more people will think about carpooling with others and it makes for less traffic.	01, 03
109	12b	To promote ride-share, to cut down on traffic. I don't need it very often but when I do it is great that its there.	01, 03
111	12b	It should help free up traffic for people who carpool.	03

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Respondent #	Question #	Open End Verbatim	Code
113	12b	It would make it so much easier on traffic if you carpool. Advantage of a better lane if you carpool.	01, 03
116	12b	It takes time off of my commute and encourages more people to carpool.	02, 03
117	12b	It would help to get to my destination faster.	02
118	12b	I would be willing to give it a trial period,	05
119	12b	It makes it better for the people who can carpool and it makes them get home faster.	02
120	12b	So far, I have liked how it works heading home. I think it would encourage people to carpool or ride a bus.	03, 06
121	12b	To move more traffic, people will carpool or take the buses more. I just think it is a good idea. It would also help to keep creep people (who harass young women) off of the buses.	07, 06, 03
122	12b	If it works. I have noticed that it is not as bad in Portland as into Vancouver. Its not that bad during the day.	05
123	12b	I favor anything that speeds up traffic.	07
124	12b	I would like it if it would get traffic to move for all drivers.	07
125	12b	Need to promote denser use of vehicles. HOV lanes need to be longer than the one in Portland but it works well here!	01, 06
126	12b	Only for peak period, relief of other lanes of traffic.	01
128	12b	Because its usually not as stacked up as the other lanes. Being a car-pooler, I can appreciate that.	02
129	12b	Gets more people to move faster in theory. It doesn't help people who are solo drivers.	07
132	12b	It would be better for everyone else to have more lanes like the HOV lane. We would all get to work faster.	02
134	12b	During busy traffic it will get you home faster. A really good idea to get this lane in place.	02, 06
135	12b	It would drive people to carpool together. People would look at buses as an alternative. People might consider light rail and vote for it next time. Also E/W bus lines.	03, 08
137	12b	If you are carpooling, you should be able to have an advantage in traffic and the HOV lane provides that.	03
138	12b	Keeps cars moving. The HOV lane lets car-poolers go on it so that there's less traffic in my lane.	07, 01
139	12b	Because I think it gets people to carpool and doing that prevents pollution.	03, 04
142	12b	Get home faster.	02

WSDOT HOV Lane Community Perception Study

Respondent #	Question #	Open End Verbatim	Code
148	12b	It makes it faster to get to your location. It encourages more people to carpool.	02, 03
149	12b	Buses need their own lane. People who drive alone deserve to wait, I do. It keeps traffic moving faster.	08, 07
151	12b	Convenience and extra speed.	02
153	12b	I take the bus and that would be good for me. Get me to Portland faster.	08, 02
154	12b	It will speed up traffic for cars that can use it and encourage others to carpool so they can use it too.	07, 03
155	12b	I use it. Reduces congestion, hopefully.	01
156	12b	I think it is great, I ride CTran daily and the ride back from OHSU does not take over 45, ever! I think that a lane on my side of the river would make traffic flow smoothly. Of course, I really think that we need another bridge. But just let them know that a lot of doctors and nurses at OHSU ride CTran and carpool. I would like to see some kind of security at Park & Ride lots. My car is a convertible and easily broken into.	07, 06
157	12b	I like it a lot. I would really like it when I ride my motorcycle.	06
158	12b	I used to commute in Los Angeles and they worked well there.	06
159	12b	Because I can go faster and we can get home faster. Its better than the dollars going to something else.	02
160	12b	So you don't have to wait in traffic.	01
164	12b	If data proves that it is a good idea, then I'm all for it. It should be implemented.	05
165	12b	It helps traffic - I know it COULD work but I'm not convinced that it does.	07, 05
166	12b	At times, a lot of commuters are congested there. I think that it would help people while they are going to work.	07
167	12b	People that carpool and ride the bus cut down on pollution and should get an advantage.	03, 04
169	12b	Makes traffic flow better.	07
170	12b	I think it is great for the people who do carpool. It gives people a better chance to get home faster after work.	03, 02
172	12b	It will slow you down but would be a convenience for car-poolers. More environmentally sound. Speeders and Cheaters would get busted!	03, 04
173	12b	I feel that if the HOV lane will speed up traffic through encouraging carpools and less cars on the road, then I am in favor of it.	01, 03
174	12b	I can't give my opinion until a trial period has been done. Call me back after that.	05

WSDOT HOV Lane Community Perception Study

Respondent #	Question #	Open End Verbatim	Code
176	12b	I carpool occasionally now but most of the time I drive by myself. If they do it right, it can be very effective.	06
178	12b	Helps keep traffic moving.	07
179	12b	So people who ride together can get to their destination faster and encourage more people to carpool.	02, 03
180	12b	Its only fair, people can ride together and not use gas or hurt the environment. If you can carpool or take the bus, do it!	03, 04
182	12b	Makes is easier for people making the effort to cut back on driving.	03
183	12b	If it encourages more people to carpool, then it is a good idea.	03
184	12b	I like it because for the people that do carpool, it really helps after work.	02, 03
185	12b	Reduces traffic for car-poolers.	01, 03
187	12b	I think it helps car-poolers and buses; they can move quickly through the interstate, it does work.	02, 03, 08
188	12b	helps get through traffic faster for car-poolers.	02, 03
189	12b	Makes traffic less hectic. It'll lessen traffic, more people will hopeful ride with each other.	01, 03
190	12b	I think it will save on commuting & congestion because it will encourage folks to ride together.	01, 03
192	12b	More efficient way to travel and encourages more people to travel together.	03
193	12b	I feel that the HOV lane will speed up traffic.	07
194	12b	Yes, it is very good for us that carpool, as we get to work and home faster.	02, 03
195	12b	I don't know...	09
196	12b	Only if it is so well used that it relieves the other lanes but it doesn't seem to.	05
197	12b	It makes it easier for me to get to my destination because of carpools.	07
200	12b	Just because it promotes carpooling.	03
201	12b	Makes traffic move faster.	07
202	12b	I like it when I have a person with me and I'm not happy when I don't have anyone with me.	03
209	12b	Anything to speed up the traffic through the Vancouver area would be a blessing.	07

## Q12c – Oppose HOV, Open End Verbatims

Respondent #	Question #	Open End Verbatim	Code
001	12c	It's wasting half the capacity of lanes because only 50% of people actually carpool. Also, the northbound commutes are the ones that need it because that's where all the jobs are.	01, 09
003	12c	Seldom used and would just cause more delays.	01, 02
004	12c	Other people can drive faster in the HOV lane, I want to go faster too.	03
006	12c	Congestion is caused by a two lane stretch of freeway in Oregon.	09
010	12c	I can't carpool because I'm in Sales. I don't know where I'm going to work from one day to the next. Also, the bridge is always going up which makes it a hassle to go to OR, with one lane down to just carpool lanes, its going to be even more of a hassle.	02, 05
016	12c	There is not as much traffic in WA and it clears up before the and back after the bridge in Oregon.	05
017	12c	Everybody is equal. Forget having an HOV lane. Just open the highway and let everyone go.	03
023	12c	Because it only identifies with a select group. Doesn't solve the other problem which is amount of cars and lane size.	03, 04
029	12c	HOV lanes screw up traffic. Vehemently oppose. Outlying areas don't have bus/carpool services.	02, 03
030	12c	The volume of cars travel. Why should single-occupancy drivers be punished? I-5 North HOV lane backs up traffic.	03, 02
032	12c	Don't think that any type of bus needs to travel faster than cars.	12
038	12c	It is a form of social manipulations. It restricts lanes to 2 lanes of traffic and worsens the problem.	02
041	12c	No way! To take a bus?! Have to pay taxes on something I don't use? Bad idea!	08
043	12c	All this will do is create a bottleneck worse than it already is. Especially around Delta Park. The designers need to study the dynamics of fluid flow. There is not enough room to keep trying to increase what they think can be crammed into somewhere that has no where to go. Other states have them and they still have congestion problems.	05, 11
046	12c	I sat down and analyzed travel times. It always seemed to me the metered on ramp were something that the traffic engineers would come up with. The HOV lanes seems to be there to get rid of extra vehicles and I think politicians came up with it so you're increasing traffic in the other lanes. While the people in the HOV lanes are cruising by. It is not fair to those that can't carpool and you're punishing those that are unable to carpool.	03

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047	12c	Doesn't give all drivers the same time of travel. Hard on the people who work on their own. Sales	03
048	12c	You'll have two lanes and one half full. At the end, they have to merge and it creates a bottleneck.	01
049	12c	Unless they add lanes to the bridge. If there were a connection with Portland HOV, then it would be great.	05
050	12c	It is cruel to punish people who don't carpool. It takes longer to commute. A new bridge is needed more than a carpool lane.	03, 02, 05
052	12c	I don't think it is used, at least not legally.	01, 06
053	12c	They still don't have enough lanes. They need at least 4 lanes each way. There are more upset than happy people.	04
054	12c	It would encourage carpooling within limited hours.	12
057	12c	We need to make the freeway wider. There should be more lanes, like 5 or 6 each way. HOV lane not fair to all people. I can not find anyone to ride with, different work times, and people are not dependable.	04, 03
058	12c	I didn't like how the HOV lanes don't give everyone the same chance.	03
060	12c	Low usage would not make sense because you would be taking away a lane and if people don't carpool, you are wasting a lane and crowding the others.	01
061	12c	It caused so many problems including traffic congestion problems. Put in another lane if adding an HOV lane.	02, 04
062	12c	I feel that there is not enough traffic to justify taking a lane for HOV.	09
066	12c	Because it gets minimal usage and it penalizes everyone else who don't have the option of carpooling.	01, 03
070	12c	Between 99th and Highway 14 there is no congestion. Congestion begins at Highway 14, continues across the bridge. There is no need for HOV lane between 99th and Highway 14	09, 05
073	12c	It goes against all the people who work for themselves or sales people. Bad way to go.	03
075	12c	It would be abused just like the one in Portland. Mothers with kids in the car seat flying past everyone.	06
077	12c	It would back up the lanes for single drivers.	02
082	12c	It would not stimulate me to change my driving pattern. When I drove in the Portland area, I thought that the HOV lane was a total catastrophe. There's no rhyme or reason for having it.	10, 11
085	12c	The reduction of lanes isn't good. There aren't enough lanes as it is.	07
088	12c	You can't force everyone to carpool. My work requires me to travel alone. Impossible to carpool. Look at what it did to I-5 Northbound. Backed it up except for HOV lane.	03, 11



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094	12c	Self interest. If I had someone I could ride with, it would benefit me but I pay more gas tax, employment tax: the lane is equally taxed to all and I should be able to use all 3 lanes.	03, 08
095	12c	Slow me down so that I can't get to my destination fast enough.	02
097	12c	I am a truck driver and I think that there is not enough room on the road already. Changing lanes, distances involved would make it difficult. If they added a lane, it would be workable. The Portland HOV is not effective.	11, 04
098	12c	You will lose lanes. Need to make an additional lane, not take one away. If you create and maintain a new HOV lane.	04
099	12c	Lots of people get tickets for nothing. The lane is almost closed to most people, the other lanes will be jammed.	01, 02
100	12c	Underutilized, traffic is stopped up in other lanes and no one is driving in HOV lanes.	01, 02
101	12c	Start with 3 lanes funnel them to 2, open 3 causes more accidents and congestion.	02
102	12c	Portland HOV has not been proven to be effective.	11
103	12c	Serves no purpose. Not carrying the volume of traffic. Should put "reversible lanes" in, instead of HOV lanes.	01
106	12c	It will probably back up traffic in the other lanes that people that drive alone use.	02
108	12c	Drastically unfair! I can't find a carpool partner. I tried but I live out of town. When they implemented an HOV lane during the bridge repair, it was a pain in the butt.	02
110	12c	No need. Traffic is not that bad right now.	09
112	12c	It will have a negative impact on me. From a collective standpoint, it would probably benefit others.	12
114	12c	It's always empty. I vehemently assert that these HOVs are a waste of money. \$500 per enamel sign. Nobody in BG or my area works my hours. All ambition needs to go into CTran. Definitely in favor of CTran.	01
115	12c	There's not much of a back-up on the Vancouver side. The back-up is on the Portland side. They should give the money to Seattle.	09
118	12c	I am not sure it accomplishes anything. Slows down everyone else. A lot of problems at 139th, it didn't used to be such. Should synchronize better.	02
123	12c	It might turn out to impede traffic rather than helping it during certain times of the day.	02
124	12c	I don't like all the construction and the way traffic slows down or stops now.	02
127	12c	Because you're on them before you realize what they are means that I've been alone and drove on the HOV lane because I didn't see the sign that said for car-poolers only. I see no benefit of them for the non-car-poolers.	03, 06

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129	12c	Doesn't impact me. People stop on the bridge for no reason. Even when there are no accidents. When you address that problem, then you can call me.	12
130	12c	Everyone pays for it, everyone should be able to use it anytime they want. Even people that drive alone.	08
131	12c	I think that most people are just going ten miles to work and don't need it. Money wise, why have a lane if only a few people use it?	09
136	12c	I do not carpool and do not want a lane to be taken away from me.	03, 07
140	12c	95% of the time that I was stuck in traffic, when I looked in the HOV lane, there were single occupancy cars. Why have an HOV lane is no one will follow the rules?	06
141	12c	Because after the interstate bridge, all lanes have to bottle neck together into 2 lanes.	05
143	12c	Single drivers end up driving in HOV lanes anyway. Doesn't change driving habits, just slows down traffic. I have been back and forth to Portland, the HOV lane is always empty.	11, 10
144	12c	Because I think the main issue is the bridge. You still have the congestion. The main problem is not Washington, it is the bridge and Delta Park. (wants a survey about a train.)	05
145	12c	Everyone I see are all going to different places of work, so it wouldn't do any good. It would take up a lane that we could use.	01
146	12c	I don't like it when I'm driving alone down the freeway. It is just going to plug up traffic more in the other lanes.	02
147	12c	It isn't fair for the people who work for themselves. Also backs up traffic after the lane ends.	03, 02
150	12c	I would oppose it because it is assuming that the carpooling would not increase.	10
152	12c	People who get on at 99th may be going to downtown Vancouver and they have to cut across traffic, which has proven a problem in Seattle.	12
158	12c	Not so many carpool lanes available. The Oregon HOV lane saved 8 minutes for the car-poolers and added 20 minutes to the others.	02
161	12c	My work prevents carpooling. I would just wait in traffic longer and it would be a waste of gas. Losing a lane would equal backed-up traffic. It won't make a difference. We don't have enough traffic. Wasting gas for non-car-pools. Backed-up to Vancouver until you cross the bridge.	02, 07, 05
162	12c	The bridge is a bottle neck. That's not the problem, it's the bridge. They should already know that.	05
163	12c	In the morning there is not enough traffic to justify a HOV lane. At night the HOV lane is empty while the other 2 lanes are full. It takes at least 1 hour to get from the Fremont bridge and the Interstate bridge.	01
168	12c	If it doesn't work out, then I have a problem with it. People won't used it properly.	06

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171	12c	The hold up is on the North-bound lane, not the south-bound lane.	09
175	12c	I think the area is not that congested and would cause traffic problems.	09, 02
176	12c	Abused! Too many people get away with using it when they are not carpooling. When they are caught, they hold up and interfere with traffic when they scramble to get out of it when they see a cop.	06
177	12c	There is already enough congestion and we don't want to make it worse. It won't force anyone to carpool. Doesn't appear to be successful in Seattle.	02, 10, 11
181	12c	I don't think anything would help traffic except maybe a bridge. I don't think its fair that the people that can't carpool are punished.	03, 05
186	12c	Not effective. Until they get a lane to go all the way through for HOV you still have to drive over 2 lanes to get there and back.	12
191	12c	Should see how it goes first, make sure it works, then evaluate other options,... Reduce speed during peak hours to 35 mph.	12
196	12c	The problem there is that there aren't enough people using it. Selfish reasons. I see a lot of empty buses.	01
199	12c	Poor idea - violators can not all be caught by the police. I travel I-5 all day and I do not see any way that it would help.	06, 12
203	12c	I oppose because I feel that there is too much of a problem South-bound to Portland on I-5 with 3 lanes and reducing it to 2 lanes with the HOV lane would cause a bottleneck situation.	02, 09
204	12c	That's not the problem, will increase traffic jam in Vancouver. The problem is when you go from 3 lanes to 2 lanes for the convenience of a HOV lane.	02
205	12c	I don't think it gets anyone anywhere. Just because they put in a HOV lane, doesn't mean more people will carpool.	10
206	12c	Doesn't work. Doesn't cut down driving time, increases it. Nobody obeys it so it clogs. More emissions w/ HOV lane. HOV lanes is great if 4 plus lanes in one direction, not w/ bottleneck or 3 lanes. Worse when accidents happen. Killing more salmon and birds when engines idle.	06, 04
207	12c	My work is just at Marine drive, its such a short trip and the traffic would just back up. I'd rather see a max.	02
208	12c	I don't think it will help with congestion and people will drive faster.	12